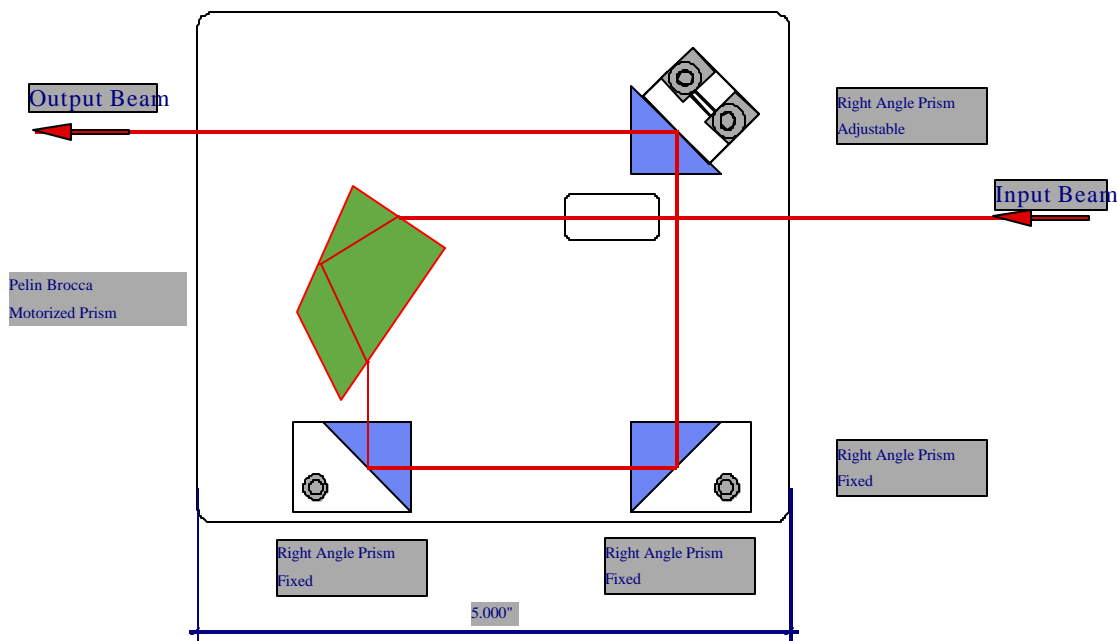


BeamGuide™

For VIBRANT™ with UV Conversion Modules

When converting the output of an OPO that operates in the visible to the UV either by doubling or mixing, there is a need to separate the desired UV beam from the residual OPO beam (which may contain signal and idler wavelengths), and some residual pump wavelengths. The energy in the UV is on the order of a few mJ, which is lower than the energy contained in the residual, undesired wavelengths.



The BeamGuide is designed to separate the wavelengths by dispersion. The output from the UV module, which includes the residual beams, is dispersed by a Pelin-Brocce prism. The UV beam is then folded by 3 right angle prisms, and directed toward the output port of the VIBRANT. The Pelin Brocca prism is mounted on a motorized rotation stage. The prism position is controlled by the system computer, which maintains the output beam direction during wavelength tuning.